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CLAIMS

1. A steerable drill bit arrangement in which the drill bit is connected to a drill string including a steering component and a stabiliser, the stabiliser being located between the steering component and the drill bit, the steering component having means to move the drill string transversely relative to a borehole in which it is located, in which the stabiliser has an inner part adapted to rotate with the drill string and an outer part adapted to engage the borehole wall, the outer part being rotatable relative to the inner part so that the outer part can remain substantially stationary as the remainder of the stabiliser rotates with the drill string.
2. An arrangement according to Claim 1 in which the stabiliser includes a clutch mechanism connected to the inner part and the outer part.
3. An arrangement according to Claim 2 in which the clutch mechanism can vary the resistance to rotation of the outer part relative to the inner part between a minimum resistance whereupon the outer part can rotate substantially freely relative to the inner part, and a maximum resistance in which the outer part is caused to rotate with the inner part.
4. An arrangement according to Claim 3 in which the variation in resistance between the minimum resistance and the maximum resistance is substantially continuous.
5. An arrangement according to Claim 2 in which the clutch mechanism comprises two annular members with corresponding tapered drive surfaces, and means to move the drive surfaces into and out of engagement.

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6. An arrangement according to Claim 1 in which the inner part and the outer part are connected together by bearings, the stabiliser including a reservoir of oil surrounding the bearings.
7. An arrangement according to Claim 6 in which the reservoir of oil is bordered by at least one movable piston which can act to vary the volume of the reservoir in response to changes in pressure and temperature within the oil.
8. An arrangement according to Claim 6 in which the piston is mounted to the outer part so as to be rotatable relative to the inner part.
9. An arrangement according to Claim 8 having a first sealing means and a second sealing means, the first sealing means engaging the piston and the inner part and allowing relative rotation therebetween, the second sealing means engaging the piston and the outer part and limiting relative rotation therebetween.
10. An arrangement according to Claim 9 having a third sealing means engaging the piston and the outer part and providing further sealing between the piston and the outer part during reciprocal sliding movement of the piston.
11. An arrangement according to Claim 7 in which the piston is annular and surrounds a part of the inner part of the stabiliser.
12. An arrangement according to Claim 7 in which there are two pistons, one at either end of the stabiliser.
13. An arrangement according to Claim 1 in which the stabiliser acts as a fulcrum about which the end of the drill string can pivot, the drill string pivoting about

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a fulcrum point determined by the stabiliser, in which the steering force is provided by the steering component and acts at a steering point determined by the steering component, in which the steering force acts upon the drill bit at a steered point determined by the drill bit, and in which the ratio of the distance between the fulcrum point and the steering point and the distance between the fulcrum point and the steered point is between 1 and 2.

14. A stabiliser for use in an arrangement according to any one of claims 1-13.